

IN THE CLAIMS:

1           1. (original) An apparatus for generating a computer numerically controlled  
2       program, the apparatus comprising:  
3                   a specifier module having a first input that receives data defining a  
4       characteristic of a piece of equipment, a second input that receives data defining a desired  
5       characteristic of a seal for use in the piece of equipment, and an output that provides a  
6       profile of a seal that is compatible with the piece of equipment; and  
7                   a computer numerically controlled program generator, having an input that  
8       receives the profile of the seal and an output that provides a computer numerically  
9       controlled program for machining an element of the seal based upon the profile of the  
10      seal, so that the seal is compatible with the piece of equipment.

1           2. (original) The apparatus of claim 1, further comprising a seal design module  
2       that receives the profile of the seal and an output that provides dimensions based upon the  
3       profile of the seal, the dimensions defining the seal such that the seal is compatible with  
4       the piece of equipment.

1           3. (original) The apparatus of claim 2, wherein the seal design module further  
2       provides at least one custom manufacturing print for the seal that is compatible with the  
3       piece of equipment.

1       4. (original) The apparatus of claim 1, further comprising a proposal generator  
2       that provides a proposal for manufacturing the seal so that the seal meets the desired  
3       characteristic and fits the piece of equipment.

1       5. (original) The apparatus of claim 4, wherein the proposal includes at least one  
2       of price information, modification notes, warnings, a bill of materials, an order form, a  
3       dimension verification form, and a plant standardization survey.

1       6. (original) The apparatus of claim 1, wherein the piece of equipment includes a  
2       pump.

1       7. (original) The apparatus of claim 6, wherein the data defining the characteristic  
2       of the piece of equipment includes an identification of a process fluid for the pump.

1       8. (original) The apparatus of claim 1, wherein the data defining the characteristic  
2       of the piece of equipment includes dimensions that describe the piece of equipment.

1       9. (original) The apparatus of claim 1, wherein the data defining the characteristic  
2       of the piece of equipment includes a description of an environmental operating condition  
3       of the piece of equipment.

1           10. (original) A computer operated method for generating a computer numerically  
2       controlled program, the method comprising the steps of:

3                   receiving a first input defining a characteristic of a piece of equipment;

4                   receiving a second input defining a desired characteristic of a seal for use  
5       in the piece of equipment; and

6                   automatically generating a computer numerically controlled program for  
7       machining an element of the seal based upon the first input and the second input, so that  
8       the seal is compatible with the piece of equipment.

1           11. (original) The method of claim 10, further comprising a step of generating  
2       dimensions based upon the first input and the second input, the dimensions defining a  
3       seal that is compatible with the piece of equipment.

1           12. (original) The method of claim 11, further comprising a step of generating at  
2       least one custom manufacturing print for the seal that is compatible with the piece of  
3       equipment.

1           13. (original) The method of claim 10, further comprising a step of generating a  
2       proposal for manufacturing the seal that meets the desired characteristic and fits the piece  
3       of equipment.

1       14. (original) The method of claim 13, wherein the proposal includes at least one  
2       of price information, modification notes, warnings, a bill of materials, an order form, a  
3       dimension verification form, and a plant standardization survey.

1       15. (original) The method of claim 10, wherein the piece of equipment includes a  
2       pump.

1       16. (original) The method of claim 15, wherein the characteristic of the piece of  
2       equipment includes an identification of a process fluid for the pump.

1       17. (original) The method of claim 10, wherein the characteristic of the piece of  
2       equipment includes dimensions that describe the piece of equipment.

1       18. (original) The method of claim 10, wherein the characteristic of the piece of  
2       equipment includes a description of an environmental operating condition of the piece of  
3       equipment.

1       19. (original) An apparatus for generating a computer numerically controlled  
2       program, the apparatus comprising:  
3              means for receiving a first input defining a characteristic of a piece of  
4       equipment;

5           means for receiving a second input defining a desired characteristic of a  
6        seal for use in the piece of equipment; and

7           means for generating a computer numerically controlled program for  
8        machining an element of the seal based upon the first input and the second input, so that  
9        the seal is compatible with the piece of equipment.

1           20. (original) The apparatus of claim 19, further comprising means for generating  
2        dimensions based upon the first input and the second input, the dimensions defining a  
3        seal that is compatible with the piece of equipment.

1           21. (original) The apparatus of claim 20, further comprising means for generating  
2        at least one custom manufacturing print for the seal that is compatible with the piece of  
3        equipment.

1           22. (original) The apparatus of claim 19, further comprising means for generating  
2        a proposal for manufacturing the seal that meets the desired characteristic and fits the  
3        piece of equipment.

1           23. (original) The apparatus of claim 22, wherein the proposal includes at least  
2        one of price information, modification notes, warnings, a bill of materials, an order form,  
3        a dimension verification form, and a plant standardization survey.

1           24. (original) The apparatus of claim 19, wherein the piece of equipment includes  
2        a pump.

1           25. (original) The apparatus of claim 24, wherein the characteristic of the piece of  
2        equipment includes an identification of a process fluid for the pump.

1           26. (original) The apparatus of claim 19, wherein the characteristic of the piece of  
2        equipment includes dimensions that describe the piece of equipment.

1           27. (original) The apparatus of claim 19, wherein the characteristic of the piece of  
2        equipment includes a description of an environmental operating condition of the piece of  
3        equipment.

1           28. (original) An apparatus for generating a computer numerically controlled  
2        program, comprising:  
3                  a database of templates of computer numerically controlled programs,  
4        specifying operations for a program for machining an element, without dimensional  
5        information; and  
6                  a computer numerically controlled program generator, having an input that  
7        receives the profile of the seal and templates from the database of templates for the seal,

8 and an output that provides a computer numerically controlled program for machining an  
9 element of the seal based upon the profile of the seal, so that the seal is compatible with  
10 the piece of equipment.

1 29. (original) A method for making a mechanical seal, comprising the steps of:

2 preparing templates of computer numerically controlled programs,

3 specifying operations for a program for machining an element, without dimensional  
4 information; and

5 receiving a profile of a seal and the templates for the seal; and

6 generating a computer numerically controlled program for machining an  
7 element of the seal based upon the profile of the seal, so that the seal is compatible with  
8 the piece of equipment.

1 30. (canceled)